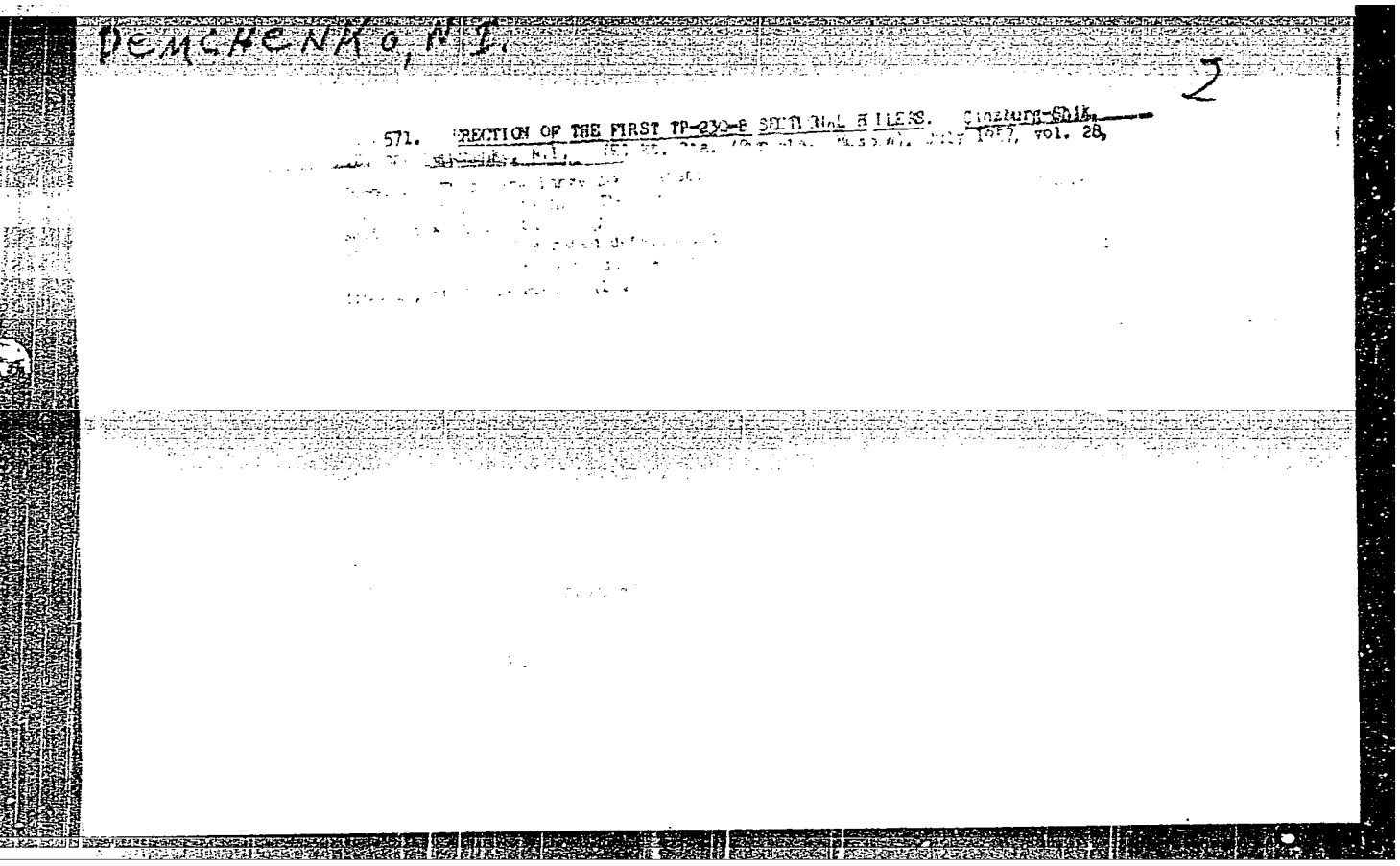


GINZBURG-SHIK, L.D., insh.; DEMCHENKO, N.I., insh.; YAKOBSON, S.S., insh.

Cracks in pipe welds. Mlek. sta. 29 no.4:28-31 Ap '58. (MIRA 11:8)
(Welding)

ACC NR: AP6015712 (A) SOURCE CODE: UR/0413/66/000/009/0125/0126

INVENTOR: Khromykh, V. A.; Demchenkov, N. I.; Stankevich, V. V.

ORG: None

TITLE: A diesel fuel pump with two-phase feed. Class 46, No. 181447

SOURCE: Izobreteniya, promyshlennyye obraztsy, tovarnyye znaki, no. 9, 1966, 125-126

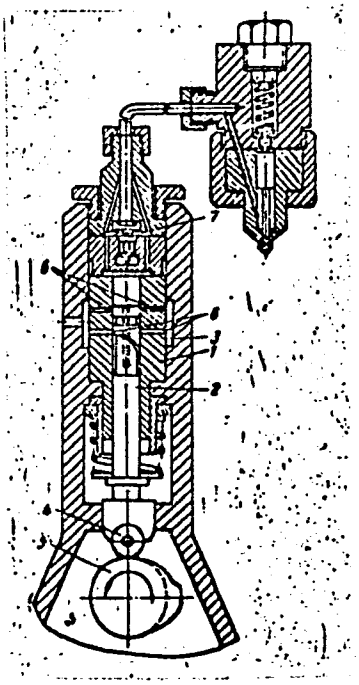
TOPIC TAGS: diesel engine, engine fuel system, engine fuel pump

ABSTRACT: This Author's Certificate introduces: 1. A diesel fuel pump with two-phase feed containing a sleeve with a plunger. The plunger has an additional shoulder for distributing fuel. An intake area in the housing communicates with the high pressure area above the plunger. The unit is equipped with a push rod driven by a cam. In order to improve fuel delivery, the intake area is connected with the area above the plunger by means of two or more channels located at various levels with respect to the height of the sleeve. 2. A modification of this device which contains an automatic intake valve in the force line to ensure preignition regardless of engine operating conditions.

Card 1/2 UDC: 621.43.031

ACC NR: AP6015712

1--sleeve; 2-- plunger; 3--intake area;
4--push rod; 5--cam; 6--channels;
7--automatic force valve



SUB CODE: 21 / SUBM DATE: 26Apr65

Card 2/2

DEMCHENKO, N.L. [Demchenko, M.L.]; STAKOVICHENKO, N.A. [Stakovychenko, N.O.]

Dyeing of nitron fibers. Leh. prom. no.4:41-43 O-D '65.
(MIRA 19:1)

DEMCHENKO, N.P.

L 40007-65 EWT(m)/EPF(c)/EWP(j)/T/EWA(c) Pc-4/Pr-4 IJP(c) RM
ACCESSION NR: AR5005638 B/0081/64/000/022/B049/B050

SOURCE: Ref. zh. Khimiya, Abs. 22B329

AUTHOR: Kutayna, L.M.; Grekov, A.P.; Lunenko, Ye. A.; Verkhovtseva, E.T.; Aleksandrova, D.M.; Tlaklv, G.D.; Demchenko, N.P.

TITLE: The use of 1-methylnaphthalene in scintillation technology

CITED SOURCE: Sb. Stsintillyatory i stsintillyats. materialy. Khar'kov, Khar'kovsk. un-t, 1963, 203-208

TOPIC TAGS: scintillator, scintillation counter, methylnaphthalene, photoelectric current, luminescence, oxygen quenching, triphenylpyrazoline, terphenyl, radioisotope

TRANSLATION: The scintillation effectiveness of liquid scintillators prepared from solutions of PPO, BPO or 1,3,5-triphenylpyrazoline in 1-methylnaphthalene is 20-40% higher than that of p-terphenyl + POPOP in toluene. They are stable with time, relatively non-volatile (higher boiling points) and less toxic, and have luminescence at longer wavelengths (maximum at 3900-4500 A). Oxygen quenching is observed. The authors used the "kh.ch." brand of 1-methylnaphthalene, which was treated with chromic anhydride in aqueous acetic acid solution and distilled in a vacuum. An unknown impurity was

Card 1/2

L 40987-65

ACCESSION NR: AR5005638

detected in this preparation, but was shown to have no effect on the scintillation effectiveness. The scintillation effectiveness was determined from the photoelectric current in an FEU during irradiation with gamma rays from Ag-110. I. Keirim-Markus

ENCL: 00 SUB CODE: OP, OC

Card 2/2

DEMCHENKO, N.P.

Mechanism of cyclodehydration of arylcarboxylic acid aracylamides. Teoret. i eksper. i khim. 1 no.3:408-410 My-Je '65. (MIRA 18:9)

DEMCHENKO, N.P.; GREKOV, A.P.

New method of synthesizing 5-monoaryl-substituted derivatives of 1.3-oxazole. Zhur.ob.khim. 32 no.4:1219-1220 Ap '62.
(MIRA 15:4)

1. Vsesoyuznyy nauchno-issledovatel'skiy institut monokristallov, stsintillyatsionnykh materialov i osobo chistykh veshchestv i Institut khimii polimerov i monomerov AN USSR.
(Oxazole)

NAGORNAYA, L.L.; BEZUGLYY, V.D.; DEMCHENKO, N.P.

Photoluminescent and scintillation properties of certain oxazole derivatives in polystyrene. Opt. i spektr. 13 no.4:518-521 O '62. (MIRA 16:3)
(Scintillation (Physics))
(Oxazole)
(Luminescence)

KUTSYNA, L.M.; SIDOROVA, R.P.; VOYEVODA, L.V.; ISHCHENKO, I.K.; DEMCHENKO, N.P.

Effect of the structure on the optical characteristics of derivatives of some five-membered heterocycles. Izv. AN SSSR.Ser.fiz. 26 no.10: 1304-1305 O '62. (MIRA 15:10)
(Heterocyclic compounds—Optical properties)
(Chemical structure)

[redacted], N.S.; DRINBERG, A. YA.

Polymers and Polymerization

Transformation of polymethylene into a trimer. Zhur. prikl. khim. 25 no. 1, 1952
Leningradskiy Tekhnologicheskiy Institut im. Lensoveta

Monthly List of Russian Accessions, Library of Congress, August 1952. Unclassified.

DEMCHENKO, N. S.

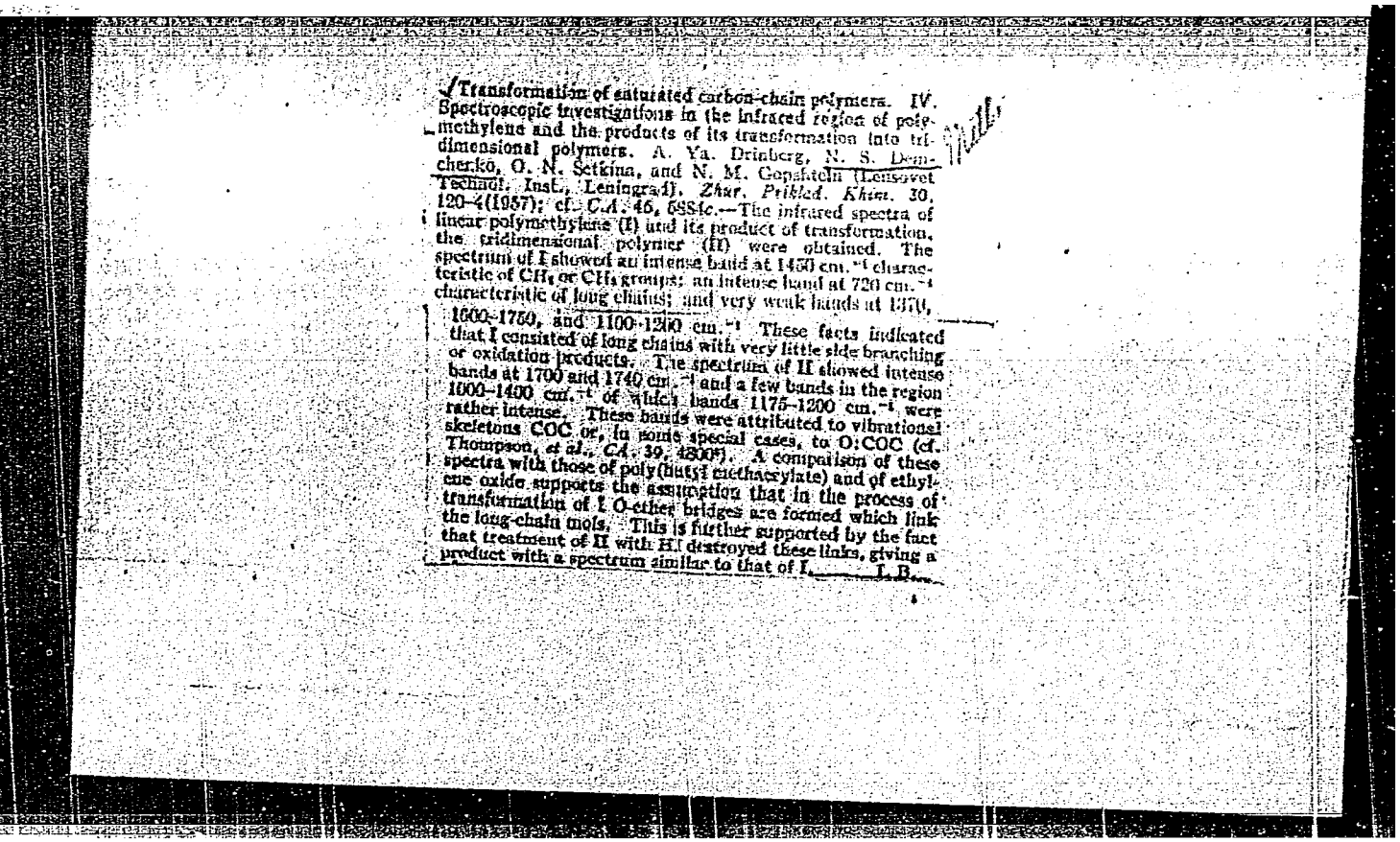
USSR/Chemistry - Plastics Jan 52

"Conversion of Polymethylene Into a Three-Dimensional Polymer," A. Ya. Drinberg, N. S. Demchenko, Leningrad Technol Inst imeni Lensovet

"Zhur Prik Khim" Vol XXVI, No 1, pp 57-63

Studied conversion of polymethylene into insol, infusible 3-dimensional polymer in presence of O_2 from air at temps $>$ 170°C and in presence of initiators (benzoyl peroxide) at 130-140°C. Conversion starts at surface of film which is in contact with O_2 and is more complete when surface is thinner. Film adhesion rises with increased deg of conversion. Proposes probable mechanism of conversion.

206T42



Transformation of saturated carbon-chain polymers. IV. Spectroscopic investigations in the infrared region of polymethylene and the products of its transformation into tridimensional polymers. A. Ya. Drinberg, N. S. Demchenko, O. N. Setkina, and N. M. Gopshtein (Lensovet Technol. Inst., Leningrad). *Zhur. Prikład. Khim.* 30, 120–4(1957); cf. *C.A.* 46, 6886c.—The infrared spectra of linear polymethylene (I) and its product of transformation, the tridimensional polymer (II) were obtained. The spectrum of I showed an intense band at 1450 cm.$^{-1}$ characteristic of CH_2 or CH_3 groups; an intense band at 720 cm.$^{-1}$ characteristic of long chains; and very weak bands at 1370, 1600–1750, and 1100–1200 cm.$^{-1}$. These facts indicated that I consisted of long chains with very little side branching or oxidation products. The spectrum of II showed intense bands at 1700 and 1740 cm.$^{-1}$ and a few bands in the region 1000–1400 cm.$^{-1}$ of which bands 1175–1200 cm.$^{-1}$ were rather intense. These bands were attributed to vibrational skeletons COC or, in some special cases, to O:COC (cf. Thompson, *et al.*, *C.A.* 39, 4300⁸). A comparison of these spectra with those of poly(butyl methacrylate) and of ethylene oxide supports the assumption that in the process of transformation of I O-ether bridges are formed which link the long-chain mols. This is further supported by the fact that treatment of II with HI destroyed these links, giving a product with a spectrum similar to that of I. I. B.

L 57488-65 EWP(e)/EPA(s)-2/EWT(m)/EPF(c)/EWP(t)/EWA(d)/EWP(v)/EPR/EPA(w)-2/EWP(j)/T/EWP(k)/EPA(bb)-2/EWP(z)/EWP(b) Pc-4/Pr-4/Pe-4/Pt-7/Pab-10 RM/WH/WW/MJW/JD

ACCESSION NR: AP5015763 UR/0072/65/000/006/0016/0018
666.293

AUTHOR: Azarov, D.P. (Doctor of technical sciences, Deceased); Demchenko, N.S. (Engineer)

TITLE: Abrasive resistance of ceramic coating on metals

SOURCE: Steklo i keramika, no. 6, 1965, 16-18

TOPIC TAGS: wear resistance, ceramic coating, steel, abrasive wear, refractory additive, titanium dioxide, chromic oxide

ABSTRACT: The article is devoted to determining the relationship between the wear resistance and solubility of refractory additives to the vitreous component of ceramic coatings, and to determining the influence on the wear resistance of the amount and properties of the insoluble refractory additives present in the coatings. The solubility of the additives was obtained from changes in the refractive index of the vitreous component; insoluble additives were determined by an x-ray diffraction technique. The ceramic coatings were deposited on Kh23N18 steel, and the additives used were TiO_2 and Cr_2O_3. It was found that the wear resistance of the coatings increases in direct proportion to the amount of undissolved particles of the refractory additive present therein, and the harder the undissolved particles, the greater the wear resistance. The latter also increases with the solubility of the additive, and, as shown by x-ray

Card 1/2

L 57488-65
ACCESSION NR: AP5015763

4

diffraction data, is largely unaffected by the orientation of the particles of the additive. "The instrument for measuring wear resistance was developed in the laboratory of the Novocherkasskiy politekhnicheskiy institut (Novocherkassk Polytechnic Institute) by S. I. Goncharov, V.N. Krolikov and I.P. Chizhov." Orig. art. has: 7 figures.

ASSOCIATION: Novocherkasskiy politekhnicheskiy institut (Novocherkassk Polytechnic Institute)

SUBMITTED: 00 SUB CODE: MT ENCL: 00

NO REF SOV: 003 OTHER: 003

Card 2/2

L 41637-66 EWT(m)/EWP(e)/EWP(t)/ETI IJP(c) JD/AW/WW/AM

ACC NR: AP6008269 SOURCE CODE: UR/0080/66/039/002/0333/0337

AUTHOR: Demchenko, N. S.; Azarov, K. P.

ORG: Novocherkassk Polytechnic Institute imeni S. Ordzhonikidze (Novocherkasskiy politekhnicheskiy institut)

TITLE: Treatment of nickel alloys before application of a ceramic covering

SOURCE: Zhurnal prikladnoy khimii, v. 39, no. 2, 1966, 333-337

TOPIC TAGS: nickel containing alloy, electrolyte, cation, ceramic film

ABSTRACT: Two Ni alloys with compositions of 94.95% and 88.0% and minor components of Cr, Fe, Mn, Al, and Si were studied. Both contained a dense layer of oxide. The oxide layer was removed by a fused alkaline or a mixture of chromic and phosphoric acids. Treated and untreated surfaces were subjected to electrolytic action and the weight loss of metal was determined. There is a strong correlation between the loss of metal and the cationic species in the electrolytic solution. Cationic species include: Ni^{++}, Co^{++}, Zn^{++}, Fe^{++}, Cu^{++}, Na^{+} in order of increasing ionic radius. Rate loss of metal exceeds 60 g/dm^2·min for Fe^{++}. The microscopic texture of the metal surface appears to change with the type of cation in solution. In the case of Co^{++} in solution, it is shown that the loss in weight (20-100 g/cm^2) and the decrease in thickness (by 20-100 microns) of the Ni anode are linear functions of time (2-14 min). Orig. art. has: 5 figures, 1 table.

SUB CODE: 11/ SUBM DATE: 24Apr64/ OTH REF: 004

Card 1/1 af UDC: 620.193.01

EWT(m)/EWA(d) GS

ACC NR: AP6032541 (A) SOURCE CODE: UR/0413/66/000/017/0153/0153

INVENTOR: Fomenko, L. A.; Abramov, N. G.; Vasilenko, P. F.; Velikodnyy, V. G.; Demchenko, O. G.; Usenko, V. Ya.; Eydel'man, V. S.

ORG: none

TITLE: Arrangement for packing explosive cartridges. Class 72, No. 185726

SOURCE: Izobreteniya, promyshlennyye obraztsy, tovarnyye znaki, no. 17, 1966, 153

TOPIC TAGS: packing technique, paper, explosive, packing machinery, cartridge packing

ABSTRACT: An Author Certificate has been issued describing an arrangement for packing explosive cartridges. It consists of a mechanism for unwinding the paper, applying glue and a stencilled pattern on the paper and cutting the paper to specification. There are mechanisms for aligning and collecting the cartridges and shaping bundles, a rotary mechanism, mechanisms for covering packets and unloading prepared packets, and an automatic interlocking system. To increase the efficiency in shaping cartridge packets, the arrangement has a mechanism for shaping packets, made in the form of rectangular flaps hinged with two levers,

Card 1/2 UDC: 623.457.621.798.4:622.242

ACC NR: AP6032541

secured on a coupling rod, and folding during lifting ten cartridges, shaping them into a pcaket in rows of five. To hold the packet of cartridges during packing, the rotary mechanism is equipped with cassettes, containing a frame, a piston with a rod, and clamping levers (see Figs 1 and 2). Orig. art. has: 2 figures. [Translation]

Fig. 1

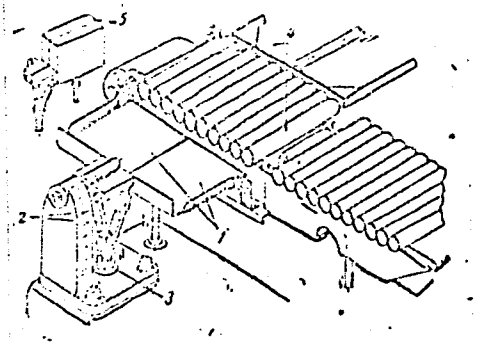


Fig. 2

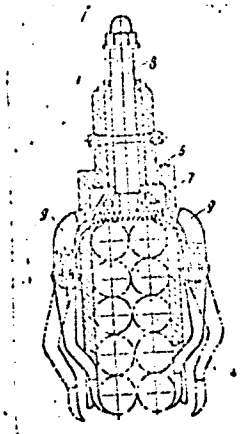


Fig. 1 and 2. Arrangement for packing explosive cartridges.
1--Flaps;
2--levers;
3--coupling rod;
4--ten cartridges;
5--packet of cartridges;
6--body;
7--piston;
8--rod [of piston];
9--levers

SUB CODE: 13/ SUBM DATE: 29Mar65/

Card 2/2

DEMCHENKO, O.P.

USSR/ Mathematics - Electrical engineering

Card 1/2 Pub. 22 - 22/60

Authors : Demchenko, O. P.

Title : Obtaining the frequency characteristics of automatic control systems with the help of Michalov's curves

Periodical : Dok. AN SSSR 100/4, 693-696, Feb 1, 1955

Abstract : A method of determining the amplitude and phase of a forced oscillation is presented. The method consists of using Michalov's curves which are expressed as follows: $F(j\omega_i) = u(\omega_i) + jv(\omega_i)$, for the left side, and $F_1(j\omega_i) = u(\omega_i) + jv(\omega_i)$, for the right side of the equation, $(cD+d)x_0 = (eD+g)$ a sin wt, a solution of which gives the desired amplitude and phase. The symbol D stands for a differential operator introduced by Kulyabkin and called the K(D) espression

Institution : .....

Presented by : Academician V. S. Kulyabkin, November 26, 1954

Periodical : Dok. AN SSSR 100/4, 693-696, Feb 1, 1955

Card 2/2 : Pub. 22 - 22/60

Abstract : of a function. The main property of this operator is that when it is multiplied by a given function it turns into zero, i. e.: $K(D) \cdot f(t) \equiv 0$. Three USSR references (1949-1951). Diagram.

DEMCHENKO, O.P.

AUTHOR: Demchenko, O. P. 20-4-21/51

TITLE: A Note on the Problem of the Insertion of Links Against Disturbing Effects in Automatic Control Systems (K voprosu o vvedenii svyazey po vozmushchayushchim vozdeystviyam v sistemakh avtomaticheskogo regulirovaniya).

PERIODICAL: Doklady AN SSSR, 1957, Vol. 116, Nr 4, pp. 601-604 (USSR)

ABSTRACT: Systems with automatic control, which possess an additional control by the insertion of links (so-called systems with combined control) are more widely distributed, because they are of a better quality than the systems operating on the principle of deviation. For the purpose of computing the parameters of such links a method is suitably employed, which permits to evaluate the efficiency of these links without a great loss of time. One of these methods is discussed in this paper. If a controlling and rectifying apparatus is introduced into a system with automatic control, then the differential equation describing the behaviour of the output coordinate can be written in the following form:

Card 1/3

A Note on the Problem of the Insertion of Links Against Disturbing Effects in Automatic Control Systems 20-4-21/51

$$X(D)x=F(D)f(t) + G(D)g(t)$$

x denoting the output coordinate, f(t) the control action g(t), the disturbing action, X(D), F(D), G(D) certain operator polynomials, which are dependent on the parameters of the system, D denoting d/dt. Apparently the term G (D) characterizes the influence of the disturbing effect of g(t) on the control process. If the laws of the modification of the disturbing effect cannot be determined or guessed, and only general conceptions on the character of the disturbing influence prevail, then the principle of invariance or a method given here may be applied for the practical solution of the system. On the choice of the structure and of the parameters of the links it must be aspired to the end, that the deformed Mikhailov-curves in the range of the essential frequencies pass as near to the coordinate origin as possible. At the end the differential equation is given for the case that several disturbances act on the system. There are 2 figures and 3 Slavic references.

Card 2/3

A Note on the Problem of the Insertion of Links Against Disturbing Effects in Automatic Control Systems 20-4-21/51

PRESENTED: February 8, 1957, by V. S. Kulebakin, Academician

SUBMITTED: February 5, 1957

AVAILABLE: Library of Congress

Card 3/3

SHUVALOV, Nikolay Konstantinovich; POPOV, Ye.P., prof., doktor tekhn. nauk, retsenzent; VORONOV, A.A., prof., doktor tekhn.nauk, retsenzent; DEMCHENKO, O.P., kand.tekhn.nauk, retsenzent; MAKSIMOV, A.D., kand.tekhn.nauk, nauchnyy red.; APTEKMAN, M.A., red.; TSAL, R.K., tekhn.red.

[Systems of program control operating on a combined principle] Sistemy programmnogo regulirovaniia, rabotaiushchie na kombinirovannom printsipe. Leningrad, Gos.soiuznoe izd-vo sudostroit. promyshl., 1960. 74 p. (MIRA 13:6)
(Automatic control) (Programming (Electronic computers))

VASIL'YEV, D.V.; MIKHAYLOV, V.A.; NORNEVSKIY, B.I.; DEMCHENKO, O.P., starshiy nauchnyy sotr., kand. tekhn. nauk, retsenzent; MURATOV, I.I., dots., kand. tekhn. nauk, retsenzent; REYNGOL'D, Yu.A., kand. tekhn. nauk, dots., retsenzent; BAYKO, V.F., kand. tekhn.nauk, dots., nauchnyy red.; KLIMINA, Ye.V., red.; KRYAKOVA, D.M., tekhn. red.

[Automatic control systems for ships] Sudovye avtomatizirovannye ustanovki. Leningrad, Gos. soiuznoe izd-vo sudostroit. promyshl., 1961. 595 p. (MIRA 15:2)
(Marine engineering) (Automatic control)

KRAMNIK, V.Yu.; SEMENOV, Yu.N.; ARUTYUNOV, E.A.; MOROZOV, V.N.; DEMCHENKO, O.Ya.

Chemically resistant ceramic metal filters made of sponge titanium wastes. Porosh.met. 4 no.4:86-90 Jl-Ag '64.

(MIRA 18:8)

1. Institut problem materialovedeniya AN UkrSSR, Zaporozhskoye otdeleniye.

DUMANS'KYY, A.V., diysnyy chlen; DEMCHENKO, P.A.

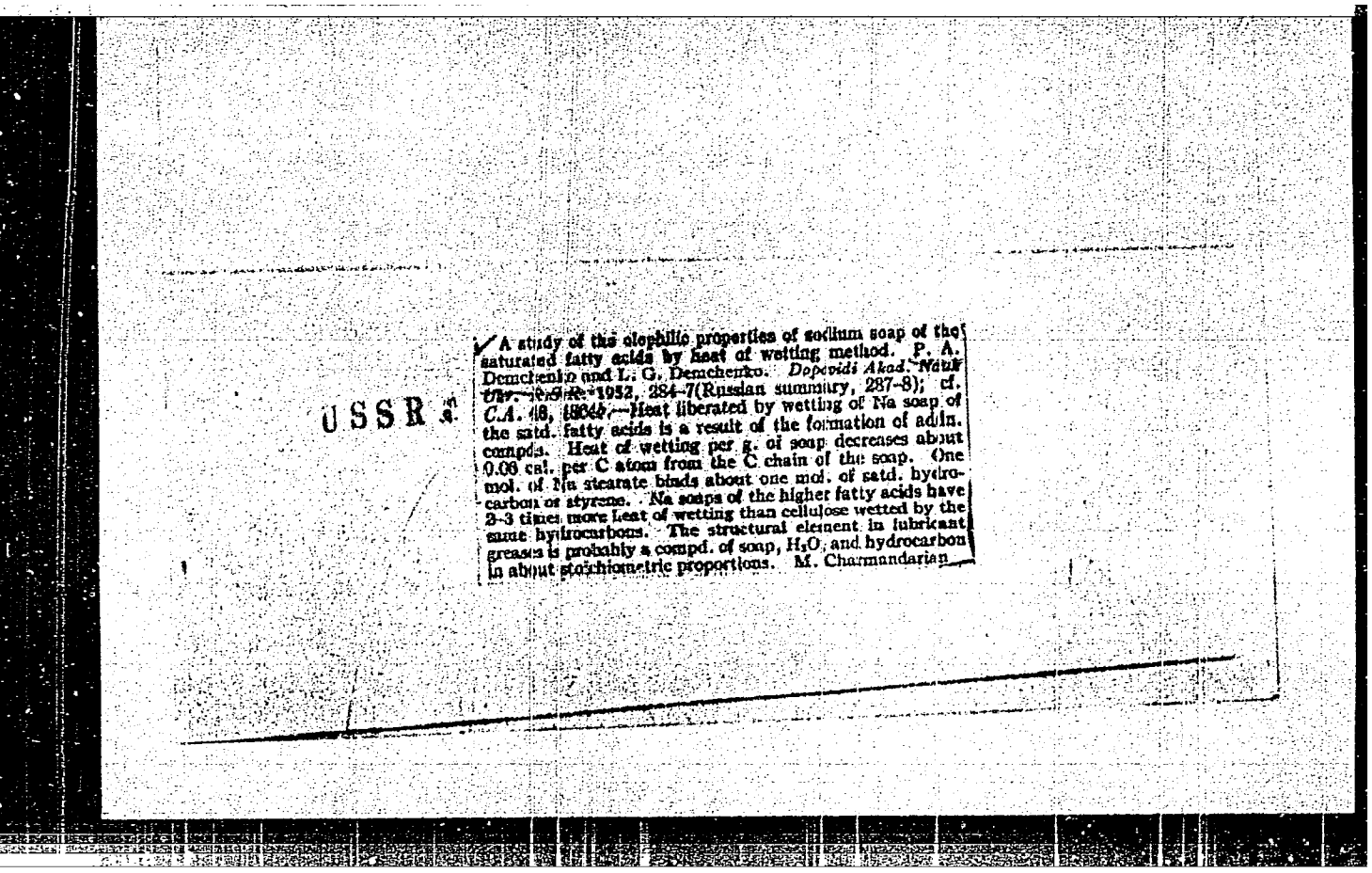
Investigation of the viscosity of concentrated solutions of hard soap. Dop. AN URSR no.3:135-137 '51. (MLRA 6:9)

1. Akademiya nauk Ukrayins'koyi RSR (for Dumans'kyy). 2. Instytut zahal'noyi ta neorhanichnoyi khimiyi Akademiyi nauk Ukrayins'koyi RSR. (Soap)

CA

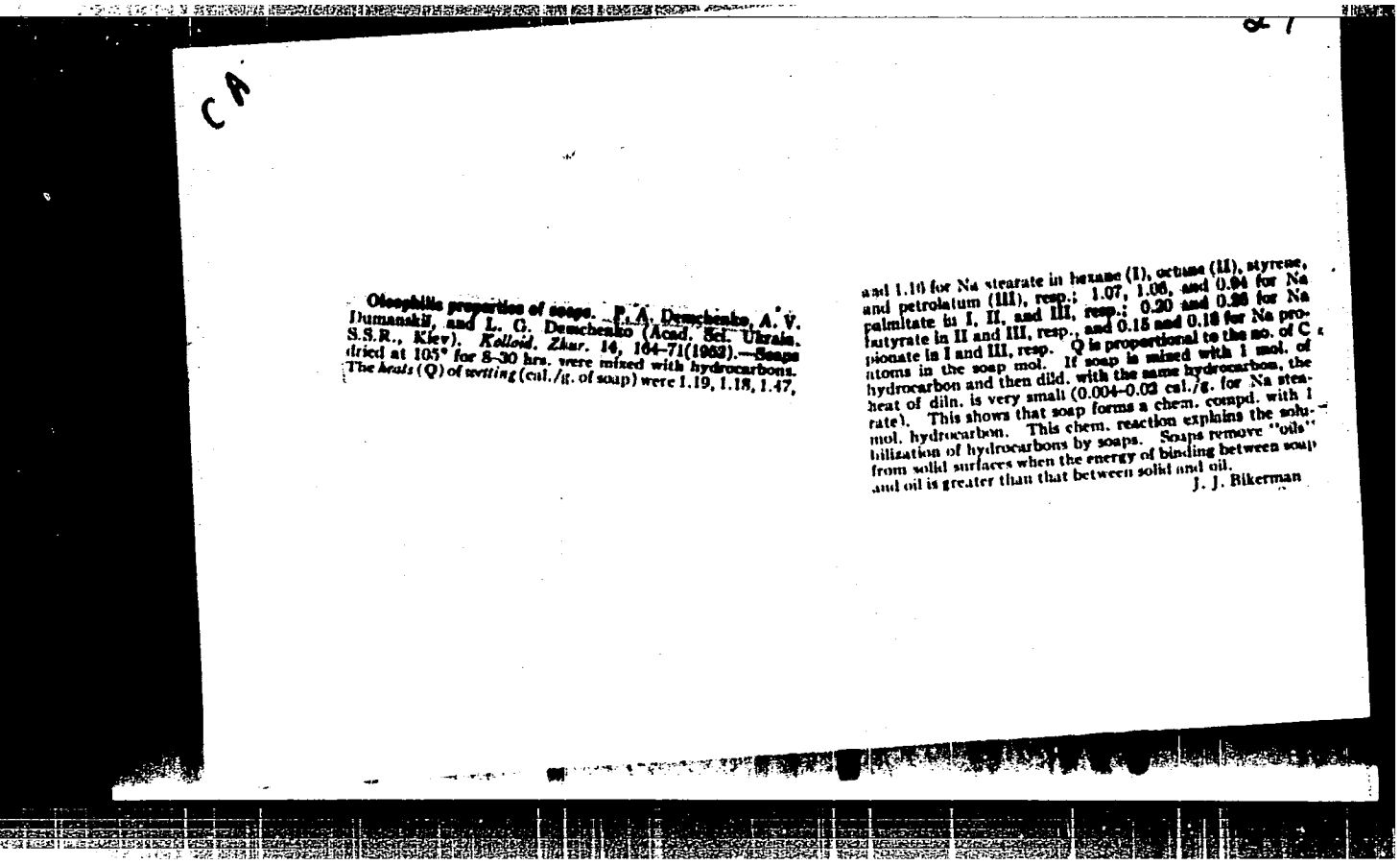
Hydrophilism of sodium soaps of stearic and palmitic acids. A. V. Dumanskii and P. A. Demchenko. *Dokłady Akad. Nauk S.S.S.R.* 78, 277–8(1931).—Heats of wetting of vacuum-dried soaps with H_2O and with a 3% NaCl in H_2O were detd. in an adiabatic calorimeter. The data [mol. wt., Q = heat of wetting, cal./g. (cal./mole)] are: Na stearate, 306.3, 4.20 (1305); Na palmitate 278.3, 5.11 (1322); mixed Na stearate-palmitate, 315, 4.45 (1402). The amts., A, of H_2O bound, calcd. by the formula of Dumanskii, *et al.* (*C.A.* 43, 7781*f*) $A = Q/0.8$, are, resp., 17.41 g./mole (5.33%), 17.76 (5.26%), 17.79 (5.56%). The thermal effect decreases with increasing moisture content of the soap and becomes 0.0 at a H_2O content of 5.50, 6.40, and 5.58%, resp. Further addn. of H_2O is accompanied by no further heat evolution. These amts. of H_2O correspond closely to the monohydrates. The calorimetric detns. check closely with detns. made by introducing a known amt. of the soap into a layer of xylene floating over a layer of H_2O, and detg. the amt. of H_2O gone over into the xylene layer on 5–30 days standing.

N. Thon



USSR

A study of the oleophilic properties of sodium soap of the saturated fatty acids by heat of wetting method. P. A. Demchenko and L. G. Demchenko. *Doprovidi Akad. Nauk Ukr. RSR* 1952, 284-7(Russian summary, 287-8); cf. *C.A.* 48, 4804*b*.—Heat liberated by wetting of Na soap of the satd. fatty acids is a result of the formation of adsln. compds. Heat of wetting per g. of soap decreases about 0.09 cal. per C atom from the C chain of the soap. One mol. of Na stearate binds about one mol. of satd. hydrocarbon or styrene. Na soaps of the higher fatty acids have 2-3 times more heat of wetting than cellulose wetted by the same hydrocarbons. The structural element in lubricant greases is probably a compd. of soap, H_2O, and hydrocarbon in about stoichiometric proportions. M. Charmandarian



CA

Oleophilic properties of soaps. P. A. Demchenko, A. V. Dumanskiĭ, and L. G. Demchenko (Acad. Sci. Ukrain. S.S.R., Kiev). *Kolloid. Zhur.* 14, 164–71(1952).—Soaps dried at 105° for 8–30 hrs. were mixed with hydrocarbons. The *heats* (Q) of *wetting* (cal./g. of soap) were 1.19, 1.18, 1.47, and 1.10 for Na stearate in hexane (I), octane (II), styrene, and petrolatum (III), resp.; 1.07, 1.06, and 0.94 for Na palmitate in I, II, and III, resp.; 0.20 and 0.26 for Na butyrate in II and III, resp., and 0.15 and 0.18 for Na propionate in I and III, resp. Q is proportional to the no. of C atoms in the soap mol. If soap is mixed with 1 mol. of hydrocarbon and then dild. with the same hydrocarbon, the heat of diln. is very small (0.004–0.03 cal./g. for Na stearate). This shows that soap forms a chem. compd. with 1 mol. hydrocarbon. This chem. reaction explains the solubilization of hydrocarbons by soaps. Soaps remove "oils" from solid surfaces when the energy of binding between soap and oil is greater than that between solid and oil.

J. J. Bikerman

DUMANSKIY, A.V.; DEMCHENKO, P.A.; DEMCHENKO, L.G.

Dependence of viscosity of concentrated soap solutions on temperature. Maslobeyno Zhirovaya Prom '53, No.3, 14-16. (MLRA 6:3)
(CA 47 no.17:9036 '53)

DEMCHENKO, P.A.; DEMCHENKO, L.G.

Effect of sodium hydroxide on the viscosity of concentrated soap solutions. Masl.-zhir.prom. 18 no.5:16-17 My '53. (MLRA 6:5)

1. Institut obshchey i neorganicheskoy khimii AN SSSR.
(Soap) (Sodium hydroxide)

DEMCHENKO P.A.

3015. YIELD OF HUMIC ACIDS FROM BROWN COAL AND PEAT. Demchenko, P.A. and Demchenko, L.G. (Kiev: Acad. Sci. Ukr. S.S.R., 1954, "Combating Percolation of Water in Loess Soils (Bor'ba fil'tratsiei vody v lëssovykh gruntakh)," 93-102; abstr. in Ref. Zh. Khim. (Ref. J. Chem., Moscow), 1955, (16), 35553). On treatment with increasing quantities of 0.1N caustic soda, the yield of humic acids rose to a maximum of 32% of moisture-free brown coal when the quantity of caustic soda was 17 to 20%, and a maximum of 14 to 15% of the peat with 15 to 16% caustic soda. Treatment of brown coal with excess caustic soda caused coagulation of sodium humates. Treatment with 1N sodium carbonate produced a maximum of 5 to 7% humic acids from brown coal or peat with 20 to 27% sodium carbonate.

FU

(1)

DEMCHENKO, P. A.

6708. Demchenko, P. A. Proizvodstvo myl i moyushchikh sredstv. Kiyev. Gostekhizdat USSR, 1954, 188s. s ill. 20sm. 1.400 ekz. 4 r. 55 k. -- Bibliogr: s. 185 (15 nazv.) -- (55-2623) p 668.1 + (016.3)

SO: Knizhnaya Letopis' No. 6, 1955

Demchenko, T. A.

3 M.A. Youtz
2 copies

Chem

Lyophilic properties of the sodium and calcium salts of saturated and unsaturated fatty acids. A. V. Dumanskii, V. I. Solnyshkin, and T. A. Demchenko (*Ukr. Khim. Zh.*, 1954, 20, 635–640).—The oleophilic properties of the Na and Ca soaps of stearic, oleic, ricinoleic, myristic and nonoic acids were estimated by measurement of their heat of interaction with a hydrocarbon oil in an adiabatic calorimeter. The heat evolution (of the order of 1 g.-cal./g.) increases linearly with the no. of C-atoms in the soap mol., and indicates the formation of bonds between soap and hydrocarbon. The hydrophilic properties of Na oleate, ricinoleate and stearate were studied (*a*) by measurements of the heat of hydration in aq. solution, and (*b*) by measurements of the heat evolved during saturation of a xylene solution of the soap with water. The degrees of hydration of Na oleate and ricinoleate correspond with 2 and 3 mol. of water, respectively.

F. W. KIRKBRIDE.

DEMCHENKO, P. A.

Study of the hydrophilic properties of disperse systems by the method of their saturation with water in a nonpolar hydrocarbon. R. V. Voitsekhovskii and P. A. Demchenko (Inst. Inorg. Chem., Acad. Sci. Ukr. S.S.R., Kiev). *Kolloid. Zhur.* 17, 231–3(1955).—Starch, cotton, agar, Na stearate, and Na palmitate took up 35, 18, 55, 5.3, and 6.5%, resp. (of their wt.), of H_2O from xylene satd. with H_2O; the equil. was reached in 3–30 days. These percentages A of "bound H_2O" agree with those calcd. from $A = 1.2Q$, Q being the heat of wetting (cf. Dumanskii, *et al.*; *C.A.* 43, 6042b). Also in *Colloid J. U.S.S.R.* 17, 239–41(1955) (Engl. translation). J. J. Bikerman

DEMCHENKO, I.A.

USSR

✓ Hygroscopic properties of the oil cake. A. V. Duncanskii, P. A. Demchenko, and I. G. Demchenko. *Maslobo-Zhirovoe Delo* 20, No. 3, 6-8(1955).—The moisture content (I) of ground, sifted (0.25 mm.), and vacuum-dried (105° for 16 hrs.) samples of sunflower-seed cake was found to vary directly with the humidity of air, as detd. by their gain in wt. when held at 25° for 240 days above the satd. soln. of $Pb(NO_3)_2$ and $AcONa$, and 32, 42, and 58% soln. of H_2SO_4. The max. gain in wt. occurred, however, during the first 24–50 hrs. of storage; the samples with 11–13% of I which were held at 71% and above humidity level were spoiled by the fungus growth at the end of 60-day storage. Vladimir N. Krukovsky

Demchenko, P. A.

USSR/ Chemistry - Inorganic chemistry

Card 1/1 Pub. 116 - 3/29

Authors : Dumanskiy, A. V.; Demchenko, P. A.; and Demchenko, L. G.

Title : Effect of electrolytes on the viscosity of a sodium palmitate solution

Periodical : Ukr. khim. zhur. 21/6, 700-702, Dec 1955

Abstract : The effect of various amounts of electrolyte on the viscosity of a sodium palmitate solution was investigated at a temperature of 90°. It was found that an increase in the electrolyte amount causes a reduction in the viscosity of the sodium palmitate solution which reaches a minimum at an electrolyte content of about 0.1 mol. It was observed that a further increase in concentration brings about a sharp increase in the viscosity of the solution which drops again after reaching a maximum. The sodium phosphate electrolyte showed the strongest effect on the viscosity of a sodium palmitate solution. Three references: 2 USSR and 1 USA (1912-1951). Graphs.

Institution : Acad. of Sc., Ukr. SSR, Inst. of Gen. and Inorgan. Chem.

Submitted : June 20, 1955

DEMCHENKO, P.A., kandidat khimicheskikh nauk; DEMCHENKO, L.G., inzhener; [redacted], I.K., inzhener.

Spontaneous comustion of expeller cake. Masl.-zhir.prom. 21 no.8: 9-12 '55. (MLRA 9:3)

1. Institut obshchey i neorganicheskoy khimii AN USSR (for Demchenko, P.A., Demchenko, L.G.); 2. Ukrglovrasshirmaslo (for Girman). (Feeding and feeding stuffs--Storage)(Combustion, Spontaneus)

DEMCHENKO, P.A.

4

Hydrophilic and sorptive properties of oil cake. A. V. Dumanskii, P. A. Demchenko, I. K. Girman, and L. G. Demchenko. *Zhur. Prikład. Khim.* 29, 1655-61(1956); cf. *C.A.* 49, 12019i.—Hydrophilic and sorptive properties of sunflower cake, ground and dried at 105–110° *in vacuo* for 16 hrs., were detd. From the exptl. heat of sorption, 16.3–16.8 cal./g., the calcd. amount of H_2O absorbed was 20.5–21.0% (dry basis). This was identical with the values detd. by absorption of H_2O from xylene satd. with H_2O and subsequent distn. with an excess of xylene. The rates of sorption and desorption as a function of humidity of the atm. (*loc. cit.*) exhibited a hysteresis effect. At 68% humidity sorption continued for 10 days; at lower humidities equil. was attained after about 25 hrs. Dry, O-free N had no effect on the cake; dry air increased the temp. slightly. But moist N and moist air raised the temp. continuously as a function of time; more rapidly with air than with N. Complete dehydration occurred at 180°. At 260° dehydration was assocd. with carbonization. To prevent spontaneous combustion in storage preliminary satn. with H_2O vapor was suggested. I. Bencowitz

DEMCHENKO, P. A.,

"Solubilization in soap solutions,"

report presented at the Fourth All-Union Conference on Colloidal Chemistry, Tbilisi, Georgian SSR, 12-16 May 1958 (Koll zhur, 20,5, p.677-9, '58, Tsukerman, A.B)

DEMCHENKO, P.A., kand. khim. nauk.

Hydrophilic properties of soap made from synthetic fatty acids. Masl.-zhir. prom. 24 no.2:24-26 '58. (MIRA 11:3)

1. Institut obshchey i neorganichskoy khimii AN USSR.
(Soap) (Acids, Fatty)

DEMCHENKO, P.A.

Hydrophllic properties of sodium soaps of saturated fatty acids.
Ukr. khim. zhur. 24 no.3:340-343 '58. (MIRA 11:9)

1.Institut obshchey i neorganicheskoy khimii AN USSR.
(Fatty acids) (Soap)

DEMCHENKO, P.A.

Colloid solubility(solubilization)of tetrachloride in hydrosols of sodium soaps of saturated fatty acids. Ukr.khim.zhur. 24 no.6:746-748 '58.
(MIRA 12:3)

1. Institut obshchey i neorganicheskoy khimii AN USSR.
(Carbon tetrachloride) (Solubility)
(Metallic soaps)

DEMCHENKO, P.A., kand. khim. nauk

Reaction of hydrocarbons with soaps from synthetic fatty acids. Masl.-shir. prom. 24 no. 8:29-30 '58. (MIRA 11:8)

1. Institut obshchey i neorganicheskoy khimii AN SSSR.
(Petrolatum)
(Soap)

SOV/21-59-5-9/25

5(

AUTHOR: Demchenko, P.A.

TITLE: Solubilization of Dichlorethane and Chloroform in Solutions of Sodium Soaps of Fatty Acids

PERIODICAL: Dopovidi Akademii nauk Ukrains'koi RSR, 1959, Nr 5, pp 494-497 (USSR)

ABSTRACT: The author studied the solubilization of dichlorethane and chloroform in solutions of saturated fatty acid soaps: stearate, palmitate, myristate, laurinate and caprylate of sodium. Soap specimens were made by the method described in reference 7. Solubilization process ended actually within one day, but complete saturation was achieved in 40-50 hours. The study of solubilization kinetics of dichlorethane (Fig. 1) and chloroform (Fig. 2) showed that the curves of dependence of solubilization of carbon chlorides on the molecular weight of homologs were analogues. With a decrease in the number of carbon atoms in the chain of the soap radical, the dissolving capacity

Card 1/3

Solubilization of Dichlorethane and Chloroform in Solutions of Sodium Soaps of Fatty Acids

of their solutions is found to decrease and is practically absent when the soap homologue radical contains less than 8 atoms of carbon. In solutions of typical soaps from laurinate to stearate of sodium, which in their radical have from 12 to 18 atoms of carbon, there is an almost linear dependence of the increase in the maximum of solubilization of dichlorethane and chloroform on an increase in the number of carbon atoms in the soap molecule. The efficacy of solubilization can serve as a medium of determining the properties of soaps, such as cleaning, emulsifying and stiffening capabilities. There are 3 graphs and 8 references, 6 of which are Soviet, and 2 English.

ASSOCIATION: Institut obshchey i neorganicheskoy khimii AN UkrSSR (Institute of General and Inorganic Chemistry of the AS UkrSSR)

Card 2/3

DEMCHENKO, P.A., kand.khim.nauk

Colloidal solubility of hydrocarbons in solutions of soaps of synthetic fatty acids. Masl.-zhir.prom. 25 no.10:22-24 '59. (MIRA 13:2)

1. Institut obshchey i neorganicheskoy khimii AN USSR.
(Hydrocarbons) (Soap)

DEMCHENKO, P.A.; DUMANSKIY, A.V.

Effect of the structure and length of the hydrocarbon radicals of detergents on their oleophilic properties. Koll.zhur. 22 no.3:272-276 My-Je '60. (MIRA 13:7)

1. Institut obshchey i neorganicheskoy khimii AN USSR, Kiyev.
(Cleaning compounds)

DEMCHENKO, P.A.

Solubilization of water in hydrocarbon solutions of lecithins.
Koll.zhur. 22 no.3:297-300 My-Je '60. (MIRA 13:7)

1. Institut obshchey i neorganicheskoy khimii AN USSR, Kiyev.
(Hydrocarbons) (Lecithin)

DEMCHENKO, P.A., kand.khim.nauk

Effect of free fatty acids, of excess alkali and alkali electrolytes on the solubilization of hydrocarbons in soap solutions. Masl.-zhir.prom. 26 no.6:27-29 Je '60. (MIRA 13:6)

1. Institut obshchey i neorganicheskoy khimii AN USSR.
(Hydrocarbons) (Acids, Fatty) (Alkali)

DEMCHENKO, P.A., kand.khim.nauk

Determination of the critical concentrations for the formation of micelles by means of solubilization and titrimetry. Masl.-zhir. prom. 26 no.9:26-28 S '60. (MIRA 13:8)

1. Institut obshchey i neorganicheskoy khimii AN Ukrainskoy SSR.
(Micelles)

AUTHORS: Demchenko, P. A., Dumanskiy, A. V., Corresponding Member AS USSR

S/020/60/131/01/033/060
B004/B011

TITLE: Critical Regions of Concentration in Soap Solutions

PERIODICAL: Doklady Akademii nauk SSSR, 1960, Vol 131, Nr 1, pp 120 - 121 (USSR)

ABSTRACT: The investigation under review was submitted to the Section of Colloidal Chemistry at the 8th Mendeleyev Congress in Moscow on March 23, 1959. The authors determined the dependence of toluene dissolution on the concentration of the solutions of sodium laurate and potassium laurate. Figure 1 shows that the toluene dissolution becomes noticeable only in the case of soap solutions of 0.026 mol/l. With rising concentration of soap solutions (Fig 2) critical points occur, in which the solubility of toluene changes irregularly. For Na- and K-laurate these points lie at 0.28, 0.60, and 0.90 mol/l. Between these points the solubility of toluene is linear, and it is found to be somewhat higher in sodium laurate. This steplike change in solubility is explained by structural modifications of the solutions under the formation of more oleophilic mycelium. There are 2 figures and 8 references,

Card 1/2

Critical Regions of Concentration in Soap Solutions

S/020/60/131/01/033/060
B004/B011

5 of which are Soviet.

SUBMITTED: November 2, 1959

Card 2/2

S/020/60/134/002/040/041XX
B004/B067

AUTHORS: Demchenko, P. A. and Dumanskiy, Corresponding Member of the AS USSR

TITLE: Effect of the Structure of the Hydrocarbons on Their Solubility in Solutions of Sodium Soaps of Saturated Fatty Acids

PERIODICAL: Doklady Akademii nauk SSSR, 1960, Vol. 134, No. 2, pp. 374-375

TEXT: In studying detergents (Refs. 1,2) the authors observed a different colloidal solubility of hydrocarbons according to their structure. They attempted to study this effect systematically. Sodium soaps were prepared by neutralizing pure fatty acids with NaOH, using a method described in Ref. 3. Fig. 1 shows the results obtained from Na caprylate, caprinate, laurate, myristate, palmitate, and stearate. (Soaps with shorter acid radicals than C_8 did not dissolve the hydrocarbons studied). The following results were obtained: a) Aromatic hydrocarbons are solubilized more

Effect of the Structure of the Hydrocarbons on Their Solubility in Solutions of Sodium Soaps of Saturated Fatty Acids

S/020/60/134/002/040/041XX
B004/B067

intensely than aliphatic ones; b) a double bond increases solubilization; c) aliphatic substituents in benzene reduce its solubilization; d) branchings of the aliphatic chain increase solubilization. The more intense effect of soaps with increasing length of the hydrocarbon chain is explained by the fact that soaps with longer hydrocarbon chains form more oleophilic micellar structures and, hence, are capable of adsorbing more hydrocarbon. There are 1 figure and 7 references: 6 Soviet and 1 US.

ASSOCIATION: Institut obshchey i neorganicheskoy khimii Akademii nauk USSR (Institute of General and Inorganic Chemistry of the Academy of Sciences UkrSSR)

SUBMITTED: May 16, 1960

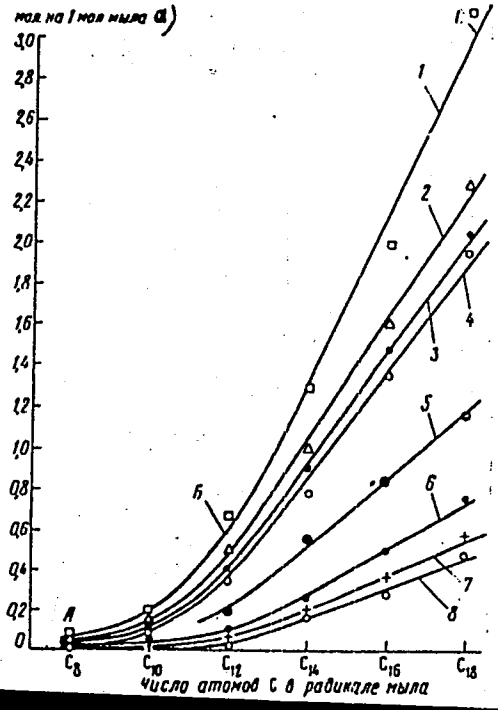
Card 2/4

Effect of the Structure of the Hydrocarbons on Their Solubility in Solutions of Sodium Soaps of Saturated Fatty Acids

S/020/60/134/002/040/041XX
B004/B067

Legend to Fig. 1: 1) Solubilization of hydrocarbons of different structures in 0.1 M solutions of sodium soaps of saturated fatty acids. 1: benzene; 2: toluene; 3: styrene; 4: o-xylene; 5: ethyl benzene; 6: heptane; 7: isooctane; 8: octane; a) solubilized moles per mole of soap.

Card 3/4



S/020/60/134/002/040/041XX
B004/B067

Card 4/4

DEMCHENKO, P.A.

Solubilization of aliphatic hydrocarbons in hyrosols of potassium soaps of fatty acids. Ukr. khim. zhur. 27 no.2:206-208 '61. (MIRA 14:3)

1. Institut obshchey i neorganicheskoy khimii AN USSR.
(Hydrocarbons) (Soap)

DEMCHENKO, P.A. [Demchenko, P.O.]

Effect of the molecular weight and concentration of sodium soaps of naphtenic acids on the solubilization of styrene [with summary in English]. Dop.AN URSR no.3:359-362 '61. (MIRA 14:3)

1. Institut obshchey i neorganicheskoy khimii AN USSR. Predstavleno akademikom AN USSR A.V.Dumanskim [Dumans'kyi, A.V.].
(Styrene) (Soaps) (Naphthenic acids)

DEMCHENKO, P.A. [Demchenko, P.O.]

Critical concentrations of micelle formation in the solutions of detergent homologues. Dop.AN URSR no.7:928-931 '61.
(MIRA 14:8)

1. Institut obshchey i neorganicheskoy khimii. Predstavleno akademikom AN USSR A.V.Dumanskim.
(Cleaning compounds)

DEMCHENKO, P.A.

Effect of electrolytes on the critical concentration of micelle formation and the solubilizing capacity of sodium laurate solutions. Koll.zhur. 23 no.5:528-530 S-O '61. (MIRA 14:9)

1. Institut obshchey i neorganicheskoy khimii AN USSR, Kiyev.

(Micelles) (Electrolytes) (Sodium laurate)

DEMCHENKO, P.A.

Effect of the molecular weight of sodium naphthenates and soaps of synthetic fatty acids on the solubilization of hydrocarbons. Koll.zhur. 23 no.5:531-534 S-O '61. (MIRA 14:9)

1. Institut obshchey i neorganicheskoy khimii AN USSR, Kiyev.
(Hydrocarbons) (Naphthenic acid) (Soap)

DEMCHENKO, P.A., kand.tekhn.nauk

Removal of unsaponifiable impurities from naphthenic acids. Masl.-zhir.prom. 27 no.3:27-28 Mr '61. (MIRA 14:3)

1. Institut obshchey i neorganicheskoy khimii AN USSR.
(Naphthenic acid)

DEMCHENKO, P.A., kand.khim.nauk

Border concentrations in sodium naphthenate solutions. Masl.-zhir. prom. 27 no.9:19-20 S '61. (MIRA 14:11)

1. Institut obshchey i neorganicheskoy khimii AN USSR.
(Naphthenic acid)

DEMCHENKO, P.A.; DUMANSKIY, A.V.

Desolubilization of hydrocarbons from solutions of naphthenic acid soaps and potassium laurinate. Dokl.AN SSSR 136 no.5:1139-1141 F '61. (MIRA 14:5)

1. Institut obshchey i neorganicheskoy khimii AN USSR. 2. Chlen-korrespondent AN SSSR(for Dumanskiy).
(Hydrocarbons) (Solubility)

DEMCHENKO, P.A.; DUMANSKIY, A.V.

Effect of phosphates and polyphosphates on the solubilizing properties of detergents. Dokl. AN SSSR 139 no.4:919-921 Ag '61. (MIRA 14:7)

1. Institut obshchey i neorganicheskoy khimii AN USSR. 2. Chlen-korrespondent AN SSSR (for Dumanskiy).
(Cleaning compounds) (Phosphates)

DEMCHENKO, P.A.; DUMANSKIY, A.V.

Effect of lyophile colloids on the solubilization of hydrocarbons in washing solutions. Dokl. AN SSSR 140 no.2:398-400 S '61. (MIRA 14:9)

1. Institut obshchey i neorganicheskoy khimii AN USSR. 2. Chlen-korrespondent AN SSSR (for Dumanskiy).
(Cleaning compounds) (Hydrocarbons)

DEMCHENKO, P.A.

Effect of electrolytes on the solubilization and critical concentration of potassium laurinate micelle formation. Ukr. khim. zhur. 28 no.1:46-48 '62. (MIRA 16:8)

1. Institut obshchey i neorganicheskoy khimii AN UkrSSR.

DEMCHENKO, P.A.; SKOROBOGAT'KO, Ye.P.

Effect of phenols on the solubilization of hydrocarbons in soap solutions. Ukr.khim.zhur. 28 no.2:203-205 '62. (MIRA 15:3)

1. Institut obshchey i neorganicheskoy khimii AN USSR.
(Phenols) (Hydrocarbons) (Solubility)

DEMCHENKO, P.A., kand.khim.nauk

Effect of sodium phosphate and polyphosphates on the solubilization of hydrocarbons in soap solutions. Masl.-zhir.prom. 28 no.2:23-26 F '62. (MIRA 15:5)

1. Institut obshchey i neorganicheskoy khimii AN USSR.
(Sodium phosphates) (Solubility) (Cleaning compounds)

DEMCHENKO, P.A.

Critical concentrations in solutions of naphthenic acid soaps.
Ukr.khim.zhur. 27 no.3:322-326 '61. (MIRA 14:11)

1. Institut obshchey i neorganicheskoy khimii AN USSR.
(Naphthenic acid)
(Soap)

DEMCHENKO, P. A.; ZAKHAROVA, N. N.; DEMCHENKO, L. G.

Effect of electrolytes on the critical concentration of sodium laurinate and naphthenate micelles. Ukr. khim. zhur. 28 no.5: 611-614 '62. (MIRA 15:10)

1. Institut obshchey i neorganicheskoy khimii AN UkrSSR.

(Electrolytes) (Naphthenic acid) (Lauric acid)

DEMCHENKO, P.A., kand.khim.nauk

Colloidal and chemical classification of surface-active substances. Masl.-zhir.prom. 28 no.7:27-30 Jl '62. (MIRA 15:11)

1. Institut obshchey i neorganicheskoy khimii AN UkrSSR.

(Surface-active agents)

DEMCHENKO, P.A., kand. khim. nauk; SKOROBOGAT'KO, Ye.P., inzh.

Effect of alkylamides on the solubilization of carbohydrates in soap solutions. Masl.-zhir. prom. 29 no.5:17-19 My '63. (MIRA 16:7)

1. Institut obshchey i neorganicheskoy khimii AN UkrSSR.
(Cleaning compounds) (Amides)

DEMCHENKO, P.A.

Volumetric determination of colloidal solubility (solubilization). Koll. zhur. 23 no.1:31-35 Ja-F '61.

Solubilization of aromatic hydrocarbons in hydrosols of saturated fatty acid soaps. Ibid.:36-39 (MIRA 17:2)

1. Institut obshchey i neorganicheskoy khimii AN UkrSSR, Kiyev.

ACCESSION NR: AP4037057 S/0073/64/030/005/0504/0507

AUTHORS: Slovikovskiy, V.I.; Demchenko, P.A.

TITLE: Monoethanolamide of naphthenic acids

SOURCE: Ukrainskiy khimicheskiy zhurnal, v. 30, no. 5, 1964, 504-507

TOPIC TAGS: naphthenic acid monoethanolamide, naphthenic acid, fatty acid, surfactant, crude naphthenic acid

ABSTRACT: This is an effort to find a substitute for fatty acids. It is known that soaps of naphthenic acids are just as unstable in hard water and in acid medium as soaps of fatty acids. Therefore, it appeared expedient to block the carboxyl group of the naphthenic acids which would then produce a surfactant, and this is achieved best by the transformation of these acids in alkylolamides. Until now the latter were prepared from natural fats; here naphthenenic acids were used in such a synthesis for the first time. Crude naphthenic acid with 15% nonsaponifying resins was diluted with low-boiling hydrocarbons (1:1.5 by volume), treated with sulfuric acid (73-75% concentration taken 8-10% of the waterfree crude), heated

Card 1/2

ACCESSION NR: AP4037057

to 45° for coagulation of the resins. The remaining 8-10% hydrocarbons which cannot be saponified are eliminated by desolubilization from the colloidal soap solution (acetone, dioxane, methanol, ethanol, etc.). The soap is then broken down with sulfuric or hydrochloric acid and pure naphthenic acids are prepared. These naphthenic acids were used for preparing their methyl esters and the latter were amidated with monoethanolamine + catalyst into monoethanolamide. Monoethanolamides are oily dark liquids readily soluble in polar organic solvents. They form stable emulsions in water and can find broad applications in industry. Their physical properties are described. Orig. art. has: 1 formula and 3 tables.

ASSOCIATION: Institut obshchey i neorganicheskoy khimii AN UkrSSR (Institute of General and Inorganic Chemistry, AN UkrSSR)

SUBMITTED: 16May63 ENCL: 00

SUB CODE: OC NR REF SOV: 003 OTHER: 000

Card 2/2

L 49246-65 EWT(1)/EPF(n)-2/EWG(m)/EPA(w)-2 Pz-6/Pq-4/Pab-10/Pl-4 IJP(c) WW/AT

ACCESSION NR: AP5010809 UR/0057/65/035/004/0711/0716

AUTHOR: Krupnik,L.I.; Shulika,N.G.; Demchenko, P.A. 59 B

TITLE: Development of a fast particle beam plasma probing technique for investigating plasma bursts A

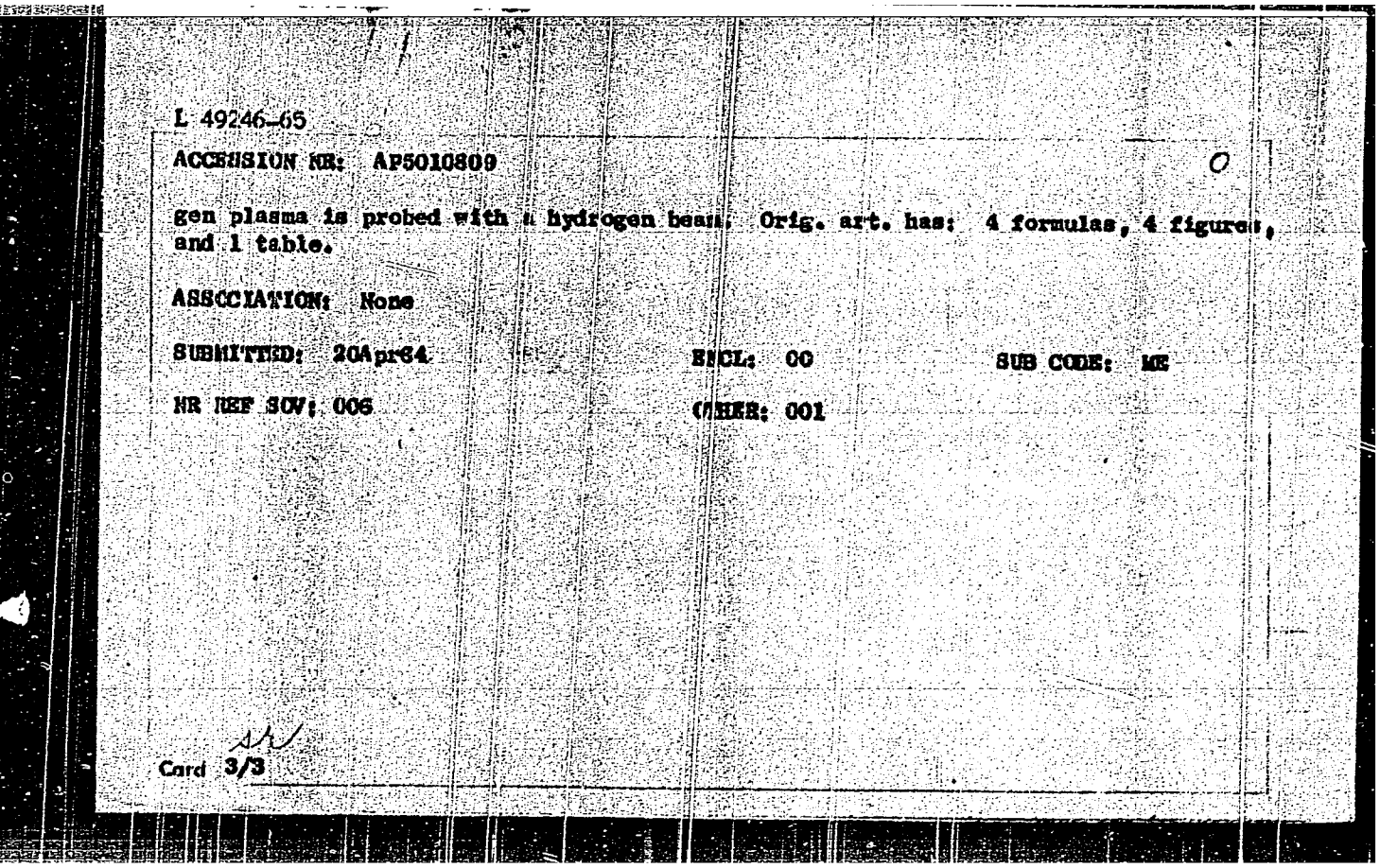
SOURCE: Zhurnal tekhnicheskoy fiziki, v. 35, no. 4, 1965, 711-716

TOPIC TAGS: plasma diagnostics, hydrogen plasma, ion beam, atom beam, ionization, particle density

ABSTRACT: The authors have previously determined the particle density in highly ionized plasma bursts by measuring the decrease in the intensity of a hydrogen atom beam occasioned by its traversing the plasma (Sb. "Diagnostika plazmy". Gosatomizdat, p.212, 1963; Doklad na IV Mezhdunarodnoy konferentsii po ionizatsionnym yavleniyam v gazakh, iyul', Parish, 1963 /Report at the 4-th International Conference on Ionization Phenomena in Gases, Paris, July 1963/). In the present paper they extend this method to the case in which the degree of ionization is not known, is not necessarily large, and is to be determined along with the density. The requisite additional information is obtained by employing two particle beams

Card 1/3

(or a single composite beam) either of atoms of different energies or of atoms and ions. Measurements of hydrogen plasma bursts were performed with the apparatus described in detail in the references cited above. In one set of experiments, hydrogen plasma bursts from a conical plasma gun were traversed by a beam containing both hydrogen atoms and hydrogen ions. The beam was obtained from a proton beam by charge exchange collisions in a gas chamber and the separate constituents were detected by the method of V.V.Afrosimov et al. (ZhTF, 30, 1470, 1960) involving production of secondary electrons on targets, plastic scintillators, and photomultipliers. After passage of the highly ionized head of the burst, the ionization fell to 20%, then increased to a second maximum of 30% just before the region of maximum density, and subsequently decreased monotonically. The particle density was also measured with an electrostatic probe; the probe and particle beam measurements were in good agreement. Experiments were also performed with beams of 4 and 12 keV hydrogen atoms. These experiments are said also to have given satisfactory results, but they are only briefly described. Probe beams containing both atoms and ions are preferable to those containing only atoms of different energies, buth they cannot be employed when the plasma burst moves in a magnetic field. The cross sections for all the interaction processes between the probe-beam and plasma particles must be known; this condition is not when a hydro-



L 49246-65

ACCESSION NR: AP5010809

gen plasma is probed with a hydrogen beam. Orig. art. has: 4 formulas, 4 figures, and 1 table.

ASSOCIATION: None

SUBMITTED: 20Apr64 ENCL: 00 SUB CODE: ME

NR REF SOV: 006 OTHER: 001

Card 3/3

L 43912-66 EWT(1) IJP(c) AT/GD

ACC NR: AT6020405 (N) SOURCE CODE: UR/0000/65/000/000/0084/0089

AUTHOR: Krupnik, L. I.; Shulika, N. G.; Demchenko, P. A.

ORG: none

TITLE: Behavior of plasmoids in the longitudinal magnetic field

SOURCE: AN UkrSSR. Issledovaniye plazmennykh sgustkov (Study of plasma clusters). Kiev, Naukova dumka, 1965, 84-89

TOPIC TAGS: plasmoid, plasma magnetic field, plasma diagnostics, plasma injection, plasma density, magnetic mirror

ABSTRACT: The authors report attempts to investigate the entrance of a plasmoid into an axially-symmetrical magnetic field by sounding the plasma with beams. The sounding was carried out with beams of fast particles, using a procedure described earlier (in: Diagnostika plazmy, Gostomizdat, 1963, p. 212). The experimental setup was also described in detail in the earlier paper. The plasmoid was produced with a conical source with pulsed injection of gas (Yu. S. Azovskiy et al., ZhTF v. 34, 5, 841, 1964). The magnetic field could be made homogeneous or inhomogeneous by using two or one solenoids. Measurement of the distance between the movable solenoid producing the magnetic field and the point of fast-particle sounding made it possible to determine the influence of the magnetic field on the plasmoid properties. The results show that in a field up to 2500 Oe a plasmoid with charged-particle density 10^{14} cm^{-3}, bounded by a diaphragm 15 mm in dia., follows strictly the magnetic force

Card 1/2

L 43912-66

ACC NR: AT6020405 0

lines, and passes unchanged through the magnetic field gradient. No reflection of the plasmoid from the magnetic mirror or change in the density of the plasmoid were observed under these conditions. Orig. art. has: 5 figures.

SUB CODE: 20/ SUBM DATE: 11Nov65/ ORIG REF: 007

Card 2/2 pb

L 43797-66 EWT(1) IJP(c) JD/AT
ACC NR: AT6020417 (N) SOURCE CODE: UR/0000/65/000/000/0188/0195

AUTHOR: Krupnik, L. I.; Shulika, N. G.; Demchenko, P. A.

ORG: none

TITLE: Determination of density, degree of ionization, and electron temperature of plasmoids by the method of fast particle beams

SOURCE: AN UkrSSR. Issledovaniye plazmennykh sgustkov (Study of plasma clusters). Kiev, Naukovo dumka, 1965, 188-195

TOPIC TAGS: plasmoid, plasma gun, plasma electron temperature, ELECTRON DENSITY

ABSTRACT: The parameters of plasma injected from a conical gun were investigated using neutral hydrogen and proton beams of various energies. This type of probing makes it possible to determine electron density, temperature and the degree of ionization as functions of time. Electron temperature measurements were supplemented by a spectroscopic method. These measurements helped to establish a gun operation regime producing impurity-free plasma with good repeatability from shot to shot. The absorption of the heavy particle beam was found to be quite useful since the plasma dynamics could be followed with approximately 30% accuracy without any significant interaction with the plasma. The measurements show that the plasma ejected from the gun has a forward part consisting of pure hydrogen with about 90% ionization. Its electron tempera-

Card 1/2

L 42787-66

ACC NR: AT6020417

C

ture reached some 60 to 80 ev. The tail part of the plasma carried large amounts of im purities (70%) and its temperature was quite low. The density of the forward part was about 10^{13} cm^{-3} and that of the tail part about ten times higher. Typical time variation of these quantities is shown. Orig. art. has: 1 table, 3 figures, 4 formulas.

SUB CODE: 20/ SUBM DATE: 11Nov65/ ORIG REF: 007/ OTH REF: 002

Card 2/2 pla

L 43796-66 EWT(1) IJP(c) GD/AT (N)
ACC NR: AT6020418 SOURCE CODE: UR/0000/65/000/000/0195/0203

61
B+1

AUTHOR: Krupnik, L. I.; Shulika, N. G.; Demchenko, P. A.

ORG: none

TITLE: Impingement of plasmoids on a metallic surface

SOURCE: AN UkrSSR. Issledovaniye plazmennykh sgustkov (Study of plasma clusters). Kiev, Naukovo dumka, 1965, 195-203

TOPIC TAGS: plasmoid, plasma diagnostics, plasma generator, plasma density, METAL SURFACE

ABSTRACT: Various aspects of the problem of colliding plasmas with metallic walls were studied using a conical plasma generator injecting plasma into a channel where diagnostic measurements on plasma properties were made. At the end of the channel, a reflecting metallic surface was set at 45°. The reflected plasma diagnostics were made in the vessel behind the reflector set at 90° to the incident plasma channel. The main tools for plasma analysis was the mass spectrograph and neutral atom beam. It has been shown that in the region of 1 to 2 cm from the reflector the plasma density increased by about a factor of 10. It is not clear what mechanism is responsible for such density increase. The mean energy of the particles in the investigated plasma changes by an insignificant amount with some addition of impurities from the reflecting surface. This is in contrast to work of A. A. Kalmykov, et al (ZhTF, 1964, 34,

Card 1/2

L 43796-66

ACC NR: AT6020418

0

8, 1423) where large peaks were found in the energy spectrum of reflected particles. The impurity composition was determined for several voltage regimes in the plasma generator giving the most efficient operation of the reflector. The coefficient of reflection was not studied in detail; its value (ratio of reflected number of particles to that of incident) is about 1:10. Orig. art. has: 5 figures.

SUB CODE: 20/ SUBM DATE: 11Nov65/ ORIG REF: 006

Card 2/2 pla

USSR/General Problems of Pathology. Tumors. Experimental Therapy.

Abs Jour : Ref Zhur - Biol., No 20, 1958, No 93926

Author : Denchenko, P. F.
Inst : Not given
Title : Treatment of Warts with Chelidonium Majus

Orig Pub : Vrachebn. delo, 1957, No. 12, 1335-1338

Abstract : An extract of Chelidonium majus, preserved in 75% alcohol and appearing as a yellowish-brown liquid with an aromatic aroma, was applied on 191 patients for the treatment of warts, papillomas, condylomas, and nodules of nursing mothers. The preparation was applied with an eye dropper on the affected area 2-3 times a day until improvement was observed. Complete resolution of the warts occurred 15-20 days after treatment. Complete recovery was observed in 135 individuals. -- V. V. Berezhinskaya.

Card 1/1

DEMCHENKO, P.F.

Use of chelidonium in treating warts. Vest.derm. i ven. 32 no.3:83 My-Je '58 (MIRA 11:7)

1. Iz Volchanskoy rayonnoy ob"yedinennoy bol'nitsy.
(CELANDINE)
(WARTS)

FEYTSARENKO, A.M.[Feitsarenko, A.M.], otv. red.; PREDKO, I.G.[Predko, I.H.], red.; GRIN'KO, T.F.[Hrin'ko, T.F.], kand. sel'khoz. nauk, red.; DEMCHENKO, P.K., red.; DOBROVOL'SKIY, I.M.[Dobrovols'kyi, I.M.], red.; LIMAR, F.M.[Lymar, F.M.], red.; SEMENOV, F.G.[Semenov, F.H.], FEYTSARENKO, G.I.[Feitsarenko, H.I.], kand. sel'khoz. nauk, red.; VAS'KOVSKIY, Yu.I.[Vas'kovs'kyi, IU.I.], red.; VIDONYAK, A.P. [Vidoniak, A.P.], tekhn. red.

[Sixty years of the Cherkassy (formerly Verkhnyaki) State Agricultural Experiment Station; collection of scientific papers] 60 rokiv Cherkas'koi (kol. Verkhniats'koi) derzhavnoi sil's'ko-hospodars'koi doslidnoi stantsii; zbirnyk naukovykh prats'. Kyiv, Vyd-vo Ukrains'koi akad. sil's'kohospodars'kykh nauk, 1961. 145 p. (MIRA 15:2)

1. Cherkassy. Derzhavna sil's'kohospodars'ka doslidna stantsiya. 2. Direktor Cherkasskoy gosudarstvennoy sel'skokhozyaystvennoy opytnoy stantsii (for Feytsarenko, A.M.). 3. Zaveduyushchiy otdelom selektsii sakharnoy svekly Cherkasskoy gosudarstvennoy sel'skokhozyaystvennoy opytnoy stantsii (for Grin'ko).

(Continued on next card)

FEYTSARENKO, A.M.---(continued) Card 2.

4. Zaveduyushchiy otdelom obrabotki pochvy Cherkasskoy gosudarstvennoy sel'skokhozyayatvennoy opytnoy stantsii (for Demchenko). 5. Zaveduyushchiy otdelom skotovodstva Cherkasskoy gosudarstvennoy sel'skokhozyaystvennoy opytnoy stantsii (for Limar). 6. Zaveduyushchiy otdelom selektsii zernovykh kul'tur Cherkasskoy gosudarstvennoy sel'skokhozyaystvennoy opytnoy stantsii (for Feytsarenko, G.I.).
(Cherkassy--Agricultural experiment stations)

DENCHENKO, Petr Vasil'yevich, kand. sel'khoz. nauk; LEONOVA, T.S., red.

[Chemistry and animal husbandry] Khimiia i zhivotnovodstvo. Moskva, Izd-vo "Znanie," 1964. 37 p. (Novoe v zhizni, nauke, tekhnike. V Seriia: Sel'skoe khoziaistvo, no.16) (MIRA 17:8)

1. DEMCHENKO, P. V.; KOSTYLEVA, K. S.

2. USSR (600)

4. Dairy Cattle

7. Progressive practice in increasing milk production. Dost. sel'khoz. no. 2, 1952

9. Monthly List of Russian Accessions, Library of Congress, January 1953. Unclassified.

DEMCHENKO, P.V.

KOLPAKOVA, Ye.A., kandidat sel'skokhozyaystvennykh nauk; DEMCHENKO, P.V., kandidat sel'skokhozyaystvennykh nauk.

Utilization of the nutrients and energy of rations by milk cows as affected by the amount of fodder beets of silage in the ration. Trudy VNIIK 3:3-23 '56. (MLRA 10:4)
(Cows--Feeding and feeding stuffs) (Beets) (Ensilage)

DEMCHENKO, P.V., kandidat sel'skokhozyaystvennykh nauk; KAPUSTINA, A.V.

Consumption of nutritive substances and energy in highly productive pregnant dry Kholmogory cows. Trudy VNIIK 3:111-139 '56.
(Cows--Feeding and feeding stuffs) (Metabolism) (MLRA 10:4)

DEMCHENKO, P.V., kandidat sel'skokhozyaystvennykh nauk.

New food rations for growing cattle. Trudy VNIIK 3:169-180 '56.
(Cattle--Feeding and feeding stuffs) (MLRA 10:4)

DEMCHENKO, P.V., kandidat sel'skokhozyaystvennykh nauk.

Increasing early maturation in cattle. Trudy VNIIK 3:181-197 '56.
(Dairy cattle--Feeding and feeding stuffs) (MLRA 10:4)

DEMCHENKO, P.V., kandidat sel'skokhozyaystvennykh nauk.

Research on the food value of laminarias. Trudy VNIIK 3:357-384 '56. (MLRA 10:4)
(Algae) (Feeding and feeding stuffs)

USSR/Farm Animals - Cattle

Q

Abs Jour : Ref Zhur - Biol., No 15, 1959, 69307

Author : Demchenko, P.V.
Inst :
Title : Nutritional Value of Seaweeds

Orig Pub : Zhivotnovodstvo, 1956, No 12, 49-53

Abstract : The nutritional value of seaweeds of the species Laminaria saccharina and L. dagitata was studied. The introduction of seaweeds (up to 30% of the total feed value) into the rations of cows does not affect milk production and the quality of milk. Feeding of seaweeds up to 10 kg daily per head has no adverse influence on the cheese quality. Seaweeds can be used in the rations of farm animals in combination with other feeds.

Card 1/1